

**PM<sub>10</sub> Air Quality Data Update**  
**2003-2005 Design Values**  
**10/18/2006**

The following is a brief summary of EPA's air quality update for PM<sub>10</sub> air quality monitoring data for the three year period, 2003-2005. During this current three year period,

- 16 of the 86 areas previously designated nonattainment for the PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) failed to meet the NAAQS in 2003-2005 (Table 1). All 16 areas violated the 24-hour standard; 5 of the 16 also violated the annual standard.\*
- 21 additional areas (counties) failed to meet the PM<sub>10</sub> NAAQS in 2003-2005 (Table 2). All 21 areas violated the 24-hour standard; none violated the annual standard.\*

The PM<sub>10</sub> NAAQS consist of a short-term (24-hour) standard and a long-term (annual) standard.\* EPA set the 24-hour PM<sub>10</sub> standard at 150 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) not to be exceeded more than once per year on average. EPA set the annual PM<sub>10</sub> standard at 50  $\mu\text{g}/\text{m}^3$ . Compliance with both standards is judged on the basis of the most recent three years of ambient air quality monitoring data. The 24-hour PM<sub>10</sub> standard is not met at a monitoring site if the average number of estimated exceedances of the level of the standard is greater than 1.0 (1.05 rounds up). The annual PM<sub>10</sub> standard is not met at a monitoring site if the annual mean averaged over three years is greater than 50  $\mu\text{g}/\text{m}^3$  (50.5 rounds up).

**\* On September 21, 2006 EPA completed a review of the particle pollution NAAQS. In the final rule, EPA retained the 24-hour PM<sub>10</sub> standard but revoked the annual PM<sub>10</sub> standard. The revision becomes effective December 18, 2006.**

Air quality data from EPA's Air Quality System (AQS) were used to calculate expected exceedances and design values. The specific calculations are explained in the notes at the end of the tables in this update. The data used for these calculations was obtained from AQS on July 10, 2006. No regulatory decisions on attainment status have been made for areas based upon these specific calculations. In some cases the data are still under review. In addition, for regulatory decisions, data not in AQS may be informative. For information concerning these data contact:

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Table 1. Areas previously designated nonattainment for PM<sub>10</sub>

State	Designated Area	EPA Region	Status	Classification	2003-2005			Met NAAQS 2003-2005?
					2003-2005 Annual Design Value <sup>1</sup>	Expected Number of Exceedances <sup>1</sup>	2003-2005 24-hour Design Value <sup>1</sup>	
AK	Eagle River	10	Nonattainment	Moderate	18	0	90	yes
AK	Juneau	10	Nonattainment	Moderate	10	0	42	incomplete
AZ	Ajo	9	Nonattainment	Moderate	22	0	139	yes
AZ	Bullhead City	9	Maintenance	Moderate	18	0	49	yes
AZ	Douglas/Paul Spur	9	Nonattainment	Moderate	30	2.1	207	no
AZ	Hayden/Miami	9	Nonattainment	Moderate	31	0	128	yes
AZ	Nogales	9	Nonattainment	Moderate	46	10.2	280	no
AZ	Payson	9	Maintenance	Moderate	22	0	99	incomplete
AZ	Phoenix	9	Nonattainment	Serious	62	4.6	240	no
AZ	Rillito	9	Nonattainment	Moderate	37	0	118	yes
AZ	Yuma	9	Nonattainment	Moderate	38	0	127	yes
CA	Coachella Valley	9	Nonattainment	Serious	47	4	227	no
CA	Coso Junction <sup>2</sup>	9	Nonattainment	Moderate	18	1.2	118	no
CA	Imperial Valley	9	Nonattainment	Moderate	63	11.1	211	no
CA	Indian Wells Valley <sup>2</sup>	9	Maintenance	Moderate	23	2	162	no
CA	Mammoth Lakes	9	Nonattainment	Moderate	22	0	86	incomplete
CA	Mono Basin	9	Nonattainment	Moderate	70	22.2	5283	no
CA	Owens Valley	9	Nonattainment	Serious	89	23.5	4125	no
CA	Sacramento County	9	Nonattainment	Moderate	26	0	110	yes
CA	San Bernardino	9	Nonattainment	Moderate	29	1.3	162	no
CA	San Joaquin Valley	9	Nonattainment	Serious	46	0.3	150	yes
CA	South Coast Air Basin	9	Nonattainment	Serious	54	1.1	149	no
CA	Trona <sup>2</sup>	9	Nonattainment	Moderate	19	0.5	136	yes
CO	Aspen	8	Maintenance	Moderate	19	0	103	yes
CO	Canon City	8	Maintenance	Moderate	14	0	32	incomplete
CO	Denver	8	Maintenance	Moderate	37	0	111	yes
CO	Lamar	8	Maintenance	Moderate	25	0	113	yes
CO	Pagosa Springs	8	Maintenance	Moderate	24	0	89	incomplete
CO	Steamboat Springs	8	Maintenance	Moderate	23	0	94	yes
CO	Telluride	8	Maintenance	Moderate	20	0	97	yes
CT	New Haven	1	Maintenance	Moderate	41	0	130	incomplete
ID	Boise	10	Maintenance	Moderate	24	0	88	yes
ID	Fort Hall	10	Nonattainment	Moderate	24	0.8	134	yes
ID	Pinehurst	10	Nonattainment	Moderate	20	0	85	yes
ID	Portneuf Valley	10	Maintenance	Moderate	22	0	88	yes
ID	Sandpoint (Bonner County)	10	Nonattainment	Moderate	17	0	71	yes
ID	Shoshone County	10	Nonattainment	Moderate	20	0	85	yes
IL	Granite City	5	Maintenance	Moderate	39	0	105	yes
IL	Lyons Township	5	Maintenance	Moderate	32	0	92	yes
IL	Oglesby	5	Maintenance	Moderate	25	0	91	yes
IL	Southeast Chicago	5	Maintenance	Moderate	33	0	87	yes
IN	Lake County	5	Maintenance	Moderate	32	2.7	183	no
IN	Vermillion	5	Maintenance	Moderate	ND	ND	ND	incomplete
ME	Presque Isle	1	Maintenance	Moderate	15	0	63	yes
MI	Detroit	5	Maintenance	Moderate	44	4.8	193	no
MN	Rochester	5	Maintenance	Moderate	ND	ND	ND	incomplete
MN	Saint Paul	5	Maintenance	Moderate	33	0	83	yes
MT	Butte	8	Nonattainment	Moderate	19	0	69	yes
MT	Columbia Falls	8	Nonattainment	Moderate	22	0	125	yes
MT	Kalispell	8	Nonattainment	Moderate	24	0	105	yes
MT	Lame Deer	8	Nonattainment	Moderate	24	0.7	117	incomplete
MT	Libby	8	Nonattainment	Moderate	27	0	103	yes
MT	Missoula	8	Nonattainment	Moderate	22	0	110	yes
MT	Polson	8	Nonattainment	Moderate	20	0	105	yes
MT	Ronan	8	Nonattainment	Moderate	17	0	61	yes
MT	Thompson Falls	8	Nonattainment	Moderate	13	0	48	yes
MT	Whitefish	8	Nonattainment	Moderate	25	0	104	yes
NM	Anthony	6	Nonattainment	Moderate	30	0.7	148	yes
NV	Las Vegas	9	Nonattainment	Serious	42	3.8	274	no
NV	Washoe County (Reno)	9	Nonattainment	Serious	42	0.3	153	yes
NY	New York	2	Nonattainment	Moderate	ND	ND	ND	incomplete
OH	Cuyahoga County	5	Maintenance	Moderate	37	2.6	221	yes
OH	Mingo Junction	5	Maintenance	Moderate	32	0	95	yes
OR	Eugene/Springfield	10	Nonattainment	Moderate	18	0	50	yes
OR	Grants Pass	10	Maintenance	Moderate	16	0	56	yes
OR	Klamath Falls	10	Maintenance	Moderate	22	0	110	yes
OR	La Grande	10	Maintenance	Moderate	22	0	61	yes
OR	Lakeview	10	Maintenance	Moderate	19	0	84	yes
OR	Medford	10	Maintenance	Moderate	23	0	70	yes
OR	Oakridge	10	Nonattainment	Moderate	18	0	76	yes
PA	Clairton	3	Maintenance	Moderate	39	0.7	152	yes
PR	Guaynabo	2	Nonattainment	Moderate	35	0	115	yes
TX	El Paso	6	Nonattainment	Moderate	49	10.3	504	no

Table 1. Areas previously designated nonattainment for PM<sub>10</sub>

State	Designated Area	EPA Region	Status	Classification	2003-2005		2003-2005 24-hour Design Value <sup>1</sup>	Met NAAQS 2003-2005?
					2003-2005 Annual Design Value <sup>1</sup>	Expected Number of Exceedances <sup>1</sup>		
UT	Ogden	8	Nonattainment	Moderate	27	0.7	125	yes
UT	Salt Lake County	8	Nonattainment	Moderate	40	2.1	421	no
UT	Utah County	8	Nonattainment	Moderate	27	0.3	111	yes
WA	Kent	10	Maintenance	Moderate	<u>18</u>	<u>0</u>	46	incomplete
WA	Olympia	10	Maintenance	Moderate	<u>14</u>	<u>0</u>	42	incomplete
WA	Seattle	10	Maintenance	Moderate	<u>25</u>	<u>0</u>	70	incomplete
WA	Spokane	10	Maintenance	Moderate	27	0	142	yes
WA	Tacoma	10	Maintenance	Moderate	<u>20</u>	<u>0</u>	68	incomplete
WA	Wallula	10	Maintenance	Serious	<u>31</u>	<u>0</u>	134	incomplete
WA	Yakima	10	Maintenance	Moderate	24	0	105	yes
WV	Follansbee	3	Maintenance	Moderate	26	0	72	yes
WV	Weirton	3	Maintenance	Moderate	28	0	121	yes
WY	Sheridan	8	Nonattainment	Moderate	31	0	137	yes

Underlined values are based on incomplete data and are generally not valid for regulatory usage. Either there are no other sites in the area with complete data for this three-year period or a complete site(s) is located in the area but has an expected estimated exceedance value of zero and an incomplete site in the area registered the non-zero value shown.

<sup>1</sup> The updated design values are computed for the 2003-2005 period using federal reference or equivalent PM<sub>10</sub> data reported by the Tribes and the State and local governments to EPA's Air Quality System (AQS) as of July 10, 2006. Concentrations flagged by States and Tribes as natural events (e.g. high winds, wildfires, volcanic eruptions) or exceptional events (e.g. construction, prescribed burning) and concurred by the EPA Regional Office are not included in the calculation of these design values. The computation procedures follow EPA guidance for calculating design values (40 CFR Part 50 Appendix K and the *PM10 SIP Development Guideline* EPA 450/2-86-001). No regulatory decisions on attainment status have been made for areas based upon this data. In some cases the data are still under review. On September 21, 2006 EPA completed a review of the particle pollution NAAQS. In the final rule, EPA retained the 24-hour PM10 standard but revoked the annual PM10 standard. The revision becomes effective December 18, 2006.

<sup>2</sup> On August 6, 2002, EPA finalized certain actions affecting the Searles Valley, California, PM-10 nonattainment area, which is located in the rural high desert and includes portions of Inyo, Kern, and San Bernardino Counties. The action splits the Searles Valley nonattainment area into three separate areas: Coso Junction, Indian Wells Valley and Trona. EPA's action also determines that the Trona area attained the PM-10 standards by December 31, 1994. On May 7, 2003, EPA finalized approval of the Indian Wells Moderate Area and Maintenance Plan and redesignated the area from nonattainment to attainment for particulate matter (PM-10). Source: <http://www.epa.gov/region9/air/searlespm/index.html>

Note: Some valid (not underlined) values are based on sites that did not meet the minimum 75 percent data capture requirements per quarter (for all 12 quarters). These values are considered valid for regulatory usage per 40 CFR Part 50 Appendix K 2.3(c) or the *Guideline on Exceptions to Data Requirements for Determining Attainment of Particulate Matter Standards*. An incomplete, potentially violating expected number of exceedances is valid if zeros are assumed for the unmonitored periods and the 3-year metric still exceeds 1.0. An incomplete, potentially violating annual standard design value is valid if by substituting one half the minimum detectable concentration for missing values in deficient quarters (i.e., those with less than 75% data capture) the recalculated 3-year metric still exceeds 50. Incomplete, potentially 'meeting' values for expected number of exceedances and annual standard design value are valid if same-site maximum quarterly values (for the 3-year period) are substituted for missing data and both recalculated 3-year metrics still meet the NAAQS. See substitution requirements and computation detail in stated references.

ND = No Data

Table 2. Additional areas failing to meet the PM<sub>10</sub> NAAQS in 2003-2005

<u>State</u>	<u>County</u>	<u>EPA Region</u>	<u>2003-2005</u>		
			<u>2003-2005 Annual Design Value</u> <sup>1</sup>	<u>Expected Number of Exceedances</u> <sup>1</sup>	<u>2003-2005 24-hour Design Value</u> <sup>1</sup>
AL	Jefferson	4	53	3.1	179
AZ	Maricopa <sup>2</sup>	9	<u>54</u>	3.2	158
AZ	Pinal <sup>2</sup>	9	44	8.1	289
CA	San Diego	9	30	3.1	155
CA	Yolo	9	26	2.0	169
CO	Mesa	9	<u>31</u>	4.0	198
MN	Kandiyohi	5	<u>37</u>	6.1	209
MO	Jasper	7	32	1.1	152
MO	St. Louis (City)	7	50	7.7	191
MT	Glacier	8	<u>18</u>	2.0	195
NM	Dona Ana <sup>2</sup>	6	42	6.1	205
NM	Sandoval	6	27	2.9	165
NV	Nye	9	<u>37</u>	4.9	252
OH	Scioto	5	20	2.8	210
SC	Georgetown	4	26	1.2	157
TN	Union	4	39	1.1	148
WY	Campbell	8	30	1.1	159
WY	Carbon	8	<u>24</u>	7.4	167
WY	Lincoln	8	23	4.4	221
WY	Natrona	8	<u>19</u>	2.1	194
WY	Sweetwater	8	24	2.9	306

Underlined annual design values are based on incomplete data. The corresponding expected number of exceedances are valid per data substitution protocol; see endnote for Table 1.

<sup>1</sup> The updated design values are computed for the 2003-2005 period using federal reference or equivalent PM<sub>10</sub> data reported by the Tribes and the State and local governments to EPA's Air Quality System (AQS) as of July 10, 2006. Concentrations flagged by States and Tribes as natural events (e.g. high winds, wildfires, volcanic eruptions) or exceptional events (e.g. construction, prescribed burning) and concurred by the EPA Regional Office are not included in the calculation of these design values. The computation procedures follow EPA guidance for calculating design values (40 CFR Part 50 Appendix K and the *PM10 SIP Development Guideline* EPA 450/2-86-001). No regulatory decisions on attainment status have been made for areas based upon this data. In some cases the data are still under review. On September 21, 2006 EPA completed a review of the particle pollution NAAQS. In the final rule, EPA retained the 24-hour PM10 standard but revoked the annual PM10 standard. The revision becomes effective December 18, 2006.

<sup>2</sup> These counties are near or, in some cases, overlap or totally contain previously designated PM<sub>10</sub> nonattainment areas. However, the monitoring sites from which these design values are derived are located outside the boundaries of the nonattainment area. Therefore, these counties are listed here as "additional areas".